



FORESTRY, FIRE & STATE LANDS REQUEST FOR PROPOSALS Cover Sheet



Project Title	The influence of basin-scale internal waves on mixing and transport of heavy metals within the south arm of the Great Salt Lake		
Lead Project Sponsor	Utah State University		
Project Contact	Name	Robert Spall	
	Mailing Address	Old Main Hill, UMC 4130, Utah State University, Logan, UT 84322-4130	
	Phone Number	435-797-2878	
	Fax Number	435-797-2417	
	E-Mail Address	spall@engineering.usu.edu	
Project Description / Abstract	<p>The three-dimensional, time-dependent computational fluid dynamics code ELCOM will be used to compute basin-scale internal wave (seiche) structures in the south arm of the Great Salt Lake. The waves will be forced through wind-driven surface shear stresses and surface thermodynamics. Local Richardson numbers resulting from these structures will be computed to determine the stability of the shear layer at the halocline. An assessment will be made regarding the possibility of turbulent transport of heavy metals through this layer. In addition seiche driven sediment re-suspension and lateral transport will also be investigated. The above calculations will be completed for a range of vertical salinity distributions and lake surface elevations.</p>		
Project Funding	Amount Requested	Matching Funds	Total Project Cost
	\$ 30,296	\$	\$ 30,296